

XXV.—*Rhynchotal Notes*.—XXXIV. By W. L. DISTANT.

Fam. Cicadidæ (continued from p. 35).

Subfam. *TIBICININÆ* (continued).

Division PARNISARIA.

This division or large group of genera is allied to that of *Taphuraria*, from which it primarily differs by the size and position of the eyes, which do not project (or, at least, not distinctly so) beyond the anterior angles of the pronotum; the abdomen is usually short, except in a few cases, not longer than the space between the apex of head and base of cruciform elevation.

Parnisaria includes a number of genera widely but sparingly distributed in all the great zoogeographical regions; in the Palæarctic region apparently confined to its extreme eastern area.

Henicotettix, the type of which I have not seen, probably comes in this group of genera, but is to be recognized by the character—"Tibiæ anticæ ultra insertionem tarsorum in spinam productæ."

Synopsis of Genera.

1. Tegmina and wings with reticulate venation, giving the appearance of numerous cellular areas *Arcystasia.*
2. Tegmina with six, wings with four apical areas *Derotettix.*
3. Tegmina and wings with the venation normal, not reticulate.
 - A. Wings with six apical areas.
 - a. Head (including eyes) more or less narrower than base of mesonotum.
 - b. Tegmina about or nearly three times as long as greatest breadth, costal margin above radial area neither curved nor gibbous; basal cell generally about twice as long as broad.
 - c. Head with front not prominently projecting, about as broad as length of vertical margins; margins of both more or less continuous.
 - d. Tegmina with the first and second apical areas longer than eighth. *Quintilia.*
 - dd. Tegmina with the first and second apical areas very short, not longer than eighth. *Psilotympana.*
 - cc. Head with front strongly projecting, narrower than length of vertical margins, which are convex; margins of both discontinuous, almost at right angles to each other.
 - e. Tegmina about twice as long as broad; abdomen longer than space between apex

- of head and base of cruciform elevation; opercula in male reaching base of first abdominal segment; rostrum reaching intermediate coxæ *Diemenia*.
- ee. Tegmina about three times as long as broad; abdomen about as long as space between apex of head and base of cruciform elevation; opercula in male not reaching base of abdomen; rostrum passing intermediate coxæ *Koranna*.
- ccc. Head with front strongly projecting, broader than the length of vertical margins, which are subangulate *Abagazara*.
- bb. Tegmina little more than twice longer than greatest breadth.
- b¹. Costal margin of tegmina above radial area neither curved nor gibbous *Gudanga*.
- b². Costal margin of tegmina above radial area more or less curved and gibbous.
- f. Head with front not prominently produced, margins of front and vertex continuous.
- g. Tegmina with the first and second ulnar areas narrow, very much longer than broad; basal cell broader at base than apex, not twice as long as broad *Masupha*.
- ff. Head with front prominently produced, margins of front and vertex discontinuous.
- gg. Tegmina with the first and second ulnar areas broad, only moderately longer than broad, placed somewhat obliquely to each other; basal cell about twice as long as broad *Platypedia*.
- B. Wings with five apical areas.
- k. Ocelli well separated from base of head.
- i. Tegmina with postcostal area narrow, but distinct.
- k. Head with the margins of front and vertex more or less continuous, front not prominently projecting *Taipinga*.
- kk. Head with front prominently projecting, the margins of front and vertex discontinuous and at right angles to each other *Adenia*.
- ii. Tegmina with postcostal area not distinct *Calyria*.
- iii. Tegmina with postcostal area very broad and cell-like *Parnisa*.
- hh. Ocelli placed close to base of head *Callipsaltria*.
- C. Wings with four apical areas.
- l. Head with front not prominently produced; margins of front and vertex more or less continuous. *Mapondera*.
- ll. Head with front prominently triangularly produced; margins of front and vertex discontinuous, somewhat at right angles to each other. *Prunasis*.

Genus QUINTILIA.

Tibicen, subgen. *Quintilia*, Stål, Hem. Afr. iv. p. 28 (1866).

Type, *Q. rufiventris*, Walk. (*Cicada*).

Quintilia mogaunia, sp. n.

♂. Body above black, finely greyishly pilose; head with a central line to front, and anterior lateral margins to vertex, pronotum with the margins, and a central longitudinal fascia (widened posteriorly, where it contains two small black spots), mesonotum with two central, discal, wedge-shaped fasciæ, the lateral margins, cruciform elevation, and abdomen with the posterior segmental margins, testaceous; body and head beneath, sternum, legs, and opercula piceous; lateral margins of face and streaks to sternum and femora testaceous; intermediate and posterior tibiæ annulated apically and basally with pale ochraceous; abdomen beneath testaceous, with central and marginal piceous spots; tegmina and wings hyaline, their basal areas pale fuscous brown, the venation fuscous; tegmina with the costal membrane and claval area, and wings with the extreme base, testaceous; opercula piceous, with their margins narrowly testaceous; rostrum reaching the intermediate coxæ; head (including eyes) a little narrower than base of mesonotum; transverse vein at base of second apical area to tegmina nearly vertical; face moderately centrally sulcate.

♀. Body beneath more testaceous than in male, and abdomen without the piceous spots.

Long., excl. tegm., ♂ 15, ♀ 18 mm.; exp. tegm., ♂ ♀, 40-44 mm.

Hab. China: Hong Kong (*J. C. Bowring*, Brit. Mus.).

Quintilia maculiventris, sp. n.

Head, pronotum, and mesonotum black; head with a small central longitudinal spot at base, pronotum with the margins and a central longitudinal fascia, mesonotum with two fasciæ on each lateral area (one marginal, the other and narrower nearer centre), and the cruciform elevation ochraceous; abdomen above ochraceous, its base and a central series of segmental spots black, the margins of the segments bright testaceous; body beneath and legs ochraceous; face, space between face and eyes, spots to acetabulæ, and central abdominal segmental spots black, segmental margins paler testaceous than above; tegmina and wings hyaline; tegmina with the veins somewhat broadly margined with fuscous, the

costal membrane ochraceous; wings pale hyaline, unspotted; head (including eyes) a little narrower than base of mesonotum; rostrum reaching the intermediate coxæ; transverse vein at base of second apical area to tegmina oblique.

Long., excl. tegm., ♂ 19, ♀ 16 mm.; exp. tegm., ♂ 39, ♀ 37 mm.

Hab. Transvaal (Coll. Dist.); Natal (Coll. Dist.).

This species has a wonderful resemblance to *Melampsalta leucoptera*, Germ.

Genus PSILOTYMPANA.

Psilotympana, Stål, Ann. Soc. Ent. Fr. (4) i. p. 620 (1861).

Type, *P. signifera*, Germ. (*Cicada*).

ABAGAZARA, gen. nov.

♀. Head considerably longer than pronotum, front longly and broadly projecting, longer than vertex, and broader than the length of the lateral margins of vertex, which are a little discontinuous; ocelli a little nearer to each other than to eyes; pronotum narrow, transverse, the posterior angles widely outwardly ampliate; mesonotum (including cruciform elevation) shorter than head and pronotum together; abdomen about as long as space between apex of head and base of cruciform elevation; tympana entirely exposed; posterior tibiæ spined on each side; anterior femora spined beneath; tegmina and wings hyaline, the first nearly three times longer than greatest breadth, and with eight apical areas; wings with six apical areas.

Type, *A. bicolorata*, Dist. (*Callipsaltria*).

DIEMENIA, gen. nov.

Head with the front strongly convexly projecting, narrower than length of the vertical margins, which are convex, margins of both discontinuous, almost at right angles to each other, ocelli a little nearer to each other than to eyes, head (including eyes) a little narrower than base of mesonotum; pronotum about as long as head, lateral margins a little laminate and slightly convex, posterior angles spatulately produced; mesonotum (including cruciform elevation) almost as long as pronotum and head together; abdomen robust, centrally ridged above, beneath with the disk convex, the marginal areas recurved, longer than space between apex of head and base of cruciform elevation; tympana entirely exposed; opercula in male transverse, about reaching base of first

abdominal segment ; rostrum reaching the intermediate coxæ ; tegmina almost half as broad as long, the postcostal area broad, basal cell about twice as long as broad, apical areas eight ; wings with six apical areas.

Type, *D. coleoprata*, Walk. (*Cicada*).

KORANNA, gen. nov.

Head with the front strongly projecting, about as broad as length of the vertical margins, which are convex, margins of both discontinuous, almost at right angles to each other, head (including eyes) narrower than base of mesonotum ; pronotum about as long as head, the lateral margins slightly laminate and convex, the posterior angles strongly spatulately produced ; mesonotum almost as long as pronotum and head together ; abdomen short, robust, as long as space between apex of head and base of cruciform elevation ; tympana completely exposed ; opercula in male short, transverse, not reaching base of abdomen ; abdomen above convex, beneath with the disk convex, the lateral areas strongly recurved ; rostrum passing the intermediate coxæ ; tegmina about three times as long as broad, postcostal area broad, basal cell broad and about twice as long as broad, apical areas eight ; wings with six apical areas.

Type, *K. analis*, Dist.

Koranna analis, sp. n.

♂. Body above black ; head with the vertical margins, inner margins of eyes, and three small basal spots ochraceous ; pronotum with the margins, *sometimes* three central longitudinal spots, and a spot on each lateral area ochraceous ; mesonotum with two small discal spots (really the apices of two obsolete obconical spots), lateral margins (narrowly), a spot at anterior angles, two lateral spots, and base of cruciform elevation ochraceous ; abdomen with the anal segment and appendage stramineous, the first with a basal black spot ; body beneath stramineous or pale ochraceous ; face, space between face and eyes, rostrum (excluding base), lateral areas of sternum and abdomen piceous and greyishly pilose ; femora and tibiae pale castaneous, tarsi piceous ; tegmina and wings semihyaline ; tegmina talc-like, the venation fuscous, a broad fuscous angulate fascia crossing bases of apical areas, and small fuscous spots at apices of longitudinal veins to apical areas ; wings with about basal halves pale ochraceous, outwardly margined with fuscous, small fuscous spots at apices of longitudinal veins to apical areas.

Long., excl. tegm., ♂ 17 mm. ; exp. tegm. 47-50 mm.
Hab. S. Africa (*Dr. Smith and Drège*, Brit. Mus.).

GUDANGA, gen. nov.

Head (including eyes) a little narrower than base of mesonotum, the front broad, depressed, broader than long, almost continuous with lateral margins of vertex, shorter than vertex ; pronotum about as long as head, its lateral margins nearly straight, its posterior angles amplified ; mesonotum (including cruciform elevation) a little shorter than head and pronotum together ; abdomen in male longer than space between apex of head and base of cruciform elevation ; tympana entirely exposed ; opercula in male short, transverse, widely separated, not extending beyond basal segment of abdomen ; rostrum almost reaching posterior coxæ ; tegmina semiopaque, a little more than twice longer than greatest breadth, costal margin neither arched nor gibbous, basal cell about twice as long as broad, apical areas eight ; wings with six apical areas (in the typical specimen on which the genus is founded one wing has six, the other five apical areas) ; anterior femora not prominently spined beneath.

Type, *G. Boulayi*, Dist.

Gudanga Boulayi, sp. n.

♂. Body black, greyishly pilose ; narrow anterior and posterior margins and a central longitudinal fascia to pronotum, cruciform elevation, posterior abdominal segmental margins both above and beneath, margins of face, and base of rostrum ochraceous ; opercula greyish ; legs piceous ; coxæ and intermediate and posterior femora beneath more or less ochraceous ; tegmina pale fuscous, mottled with darker fuscous, the venation paler, the claval area sanguineous at base, the venation fuscous.

Long., excl. tegm., ♂ 16 mm. ; exp. tegm. 36 mm.

Hab. West Australia : Champion Bay (*H. du Boulay*, Brit. Mus.).

Genus MASUPHA.

Masupha, Dist. Ann. & Mag. Nat. Hist. (6) ix. p. 317 (1892).

Type, *M. ampliata*, Dist.

Masupha Dregei, sp. n.

♂. Body above black ; head with the margins of front broadly castaneous, a small spot on each vertical margin and

three small spots at base ochraceous; pronotum with the margins (narrowly), a central discal longitudinal fascia, and the incisures ochraceous; mesonotum with two obsolete central obconical spots, only denoted by their outer margins and apices, lateral margins (narrowly) and anterior angles and centre of cruciform elevation ochraceous; abdomen above black (apex mutilated in type); body beneath stramineous; face piceous; space between face and eyes, and many irregular spots to sternum, black; legs pale castaneous, apices to femora ochraceous; tegmina and wings semihyaline talc-like, tegmina with the venation brownish ochraceous and on basal area spotted with fuscous, two angulated fuscous fasciæ on apical areas; wings with angulated fuscous spots on outer area, the outer margin pale hyaline; costal tegminal membrane, and extreme bases of both tegmina and wings, ochraceous.

Long., excl. tegm., ♂ (abdomen mutilated); exp. tegm. 49 mm.

Hab. South Africa (*Drège*, Brit. Mus.).

Genus PLATYPEDIA.

Platypedia, Uhler, Ent. Am. iv. p. 23 (1888).

Type, *P. areolata*, Uhler (*Cicada*).

Genus ARCYSTASIA.

Arcystasia, Dist. Proc. Zool. Soc. 1882, p. 133.

Type, *A. Goddefroyi*, Dist.

Genus DEROTETTIX.

Derotettix, Berg, Anal. Soc. Cient. Argent. xiv. p. 11 (1882).

Type, *D. mendosensis*, Berg.

Derotettix Wagneri, sp. n.

Head and thorax above olivaceous green; vertex of head, margins of pronotum, and cruciform elevation pale testaceous; area of the ocelli, a central longitudinal fascia to pronotum, two central, anterior, obconical spots to mesonotum, and disk of cruciform elevation black; abdomen pale olivaceous, thickly greyishly tomentose, segmental margins pale testaceous, and a central longitudinal fascia (broadest at base) piceous; body beneath and legs ochraceous, greyishly tomentose; face olivaceous; posterior margin of metanotum,

and apices of rostrum and tarsi, piceous; tegmina and wings hyaline; tegmina with the costal membrane, postcostal margin, basal cell, and base and margins of claval area virescent, venation (excluding that of apical areas) virescent; a transverse spot beneath radial area, an irregular transverse fascia crossing from end of radial area, longitudinal veins to apical area, and the apical and outer margins pale fuscous; a basal streak pale sanguineous; wings with a pale sanguineous basal streak, and the outer margins of the apical areas pale fuscous.

Long., excl. tegm., ♂ 11 mm.; exp. tegm. 26 mm.

Hab. Chaco de Santiago del Estero, Bords du Rio Salado (*E. R. Wagner*, Paris Mus.).

TAIPINGA, gen. nov.

Head (including eyes) a little narrower than base of mesonotum, front very much shorter than vertex, which is distinctly longitudinally sulcate at base, margins of front and vertex a little discontinuous, breadth of front about equal to length of margins of vertex; pronotum about equal to, or slightly longer than, head, the lateral margins slightly ampliate and convex, the posterior angles ampliate; mesonotum (including cruciform elevation) about equal in length to head and pronotum together; abdomen longer than space between apex of head and base of cruciform elevation; tympana entirely exposed; opercula in male about reaching base of abdomen; tegmina and wings hyaline, the first with the postcostal area moderately broad, the basal cell about twice as long as broad, and with eight apical areas; wing with five apical areas.

Type, *T. nana*, Walk. (*Cicada*).

This genus may be divided into two sections by the length of the upper apical area to the tegmina, which is either longer than eighth or about the same length. Further generic division may be necessary when more material can be examined.

ADENIA, gen. nov.

Head with the front very prominent, broadly conically produced, very much shorter than vertex, which is subquadrate and with its anterior and lateral margins straight, the first completely at right angles with front; ocelli slightly farther apart from each other than from eyes and well separated from base of head; pronotum about as long as head, its posterior angles very widely ampliate; mesonotum (including

cruciform elevation) as long as pronotum and head together, globosely convex; abdomen somewhat broad, moderately constricted at base, convex above, flattened beneath, the second, third, and fourth segments very broad, flat, and talc-like in appearance, fifth and sixth segments very compressed and short; opercula in male very short and transverse, not reaching base of abdomen; tympana entirely uncovered; rostrum short, scarcely reaching intermediate coxæ; tegmina and wings hyaline, the first nearly three times as long as broad, the postcostal area narrow but distinct, costal membrane broad and somewhat sinuate, apical areas eight, the uppermost very short and narrow; wings with five apical areas.

Type, *A. Yerburyi*, Dist.

Adenia Yerburyi, sp. n.

Head and thorax above piceous, thickly greyishly pilose; front of head, marginus and a central longitudinal fascia to pronotum, and the margins of two obconical spots to mesonotum obscurely ochraceous; abdomen above ochraceous, greyishly pilose, basal area piceous, margins of segments stramineous, and with a central darker longitudinal fascia; head beneath, sternum, and legs ochraceous and thickly greyishly pilose; abdomen beneath with the second, third, and fourth segments broad and talc-like, their margins and a central longitudinal fascia pale ochraceous; tegmina and wings hyaline, the venation brownish ochraceous; costal membrane to tegmina dull ochraceous.

Long., excl. tegm., ♂ 16 mm.; exp. tegm. 40 mm.

Hab. Aden (*Col. Yerbury*, Brit. Mus.).

Genus CALLIPSALTRIA.

Calopsaltria, Stål, Ann. Soc. Ent. Fr. (4) i. p. 620 (1861).

Callipsaltria, Stål, Hem. Afr. iv. pp. 9 & 49 (1866).

Type, *C. longula*, Stål (*Cicada*).

Genus CALYRIA.

Calyria, Stål, Rio Jan. Hem. ii. p. 22 (1858).

Type, *C. cuna*, Walk. (*Cicada*).

Genus PARNISA.

Parnisa, Stål, Rio Jan. Hem. ii. p. 21 (1858).

Type, *P. proponens*, Walk. (*Cicada*).

MAPONDERA, gen. nov.

Allied to *Taipinga*, but differing principally by the venation of the wings, which possess only four apical areas.

Type, *M. pulchella*, Stål (*Cicada*).

In this genus I include the *Tibicen* (*Quintilia*) *abdominalis*, Stål, of which by the kindness of Dr. Aurivillius I have had the opportunity to examine a co-type which possesses four apical areas to the wings. Stål (Hem. Afr. iv. p. 37) writes of this species: "Alæ areis apicalibus numero varialibus, tribus; quattuor vel quinque"; but he appears to have been misled by the striking similarity in colour and markings of several African species belonging to different genera. These I hope to figure in my 'Insecta Transvaaliensia.'

Genus PRUNASIS.

Prunasis, Stål, Rio Jan. Hem. ii. p. 22 (1858).

Type, *P. viridula*, Walk. (*Cicada*).

Stål, in his synopsis of the genera of Cicadidæ (Hem. Afr. iv. p. 9, 1866), gives as a distinguishing character of *Prunasis*: "*Alis areis apicalibus sex.*" This is erroneous, and he had previously (*supra*) correctly given in his diagnosis "*Alæ areolis apicalibus quattuor.*"

Division CHLOROCYSTARIA.

In this division the abdomen in the males is always more or less inflated or dilated, with a central longitudinal dorsal ridge, and longer than the space between the apex of head and base of cruciform elevation; the head (including eyes) is a little narrower than base of mesonotum; tegmina always longer than body, their greatest width only about a third of their length.

Synopsis of Genera.

A. Tegmina with eight apical areas.

a. Wings with six apical areas.

b. Opercula in male of ordinary structure.

c. Lateral margins of pronotum obliquely straight, posterior angles very slightly ampliate.

d. Head with front not produced and much broader than long, margins of front and vertex continuous

dd. Head with front much subconically produced, as long as broad at base.

Stagira.

- margins of front and vertex discontinuous *Bavea*.
- cc. Lateral margins of pronotum a little convexly sinuate, posterior angles more or less strongly ampliate.
- ddd. Head with front triangularly produced, as long as broad at base, margins of front and vertex discontinuous.
- e. Basal segment of abdomen strongly, centrally, conically produced . . . *Musoda*.
- ee. Basal segment of abdomen not conically centrally produced . . . *Muda*.
- dddd. Head with front a little produced, a little broader than long, margins of front and vertex discontinuous . . *Beturia*.
- bb. Opercula in male convex and inflated, projecting beyond the lateral margins of the abdomen.
- f. Head with the front short and broad, much broader than long, margins of front and vertex continuous *Gymnotympana*.
- ff. Head with the front narrow, about as long as broad, margins of front and vertex discontinuous *Kumanga*.
- aa. Wings with five apical areas *Conibosa*.
- B. Tegmina with thirteen apical areas.
- g. Wings with six apical areas *Chlorocysta*.
- C. Tegmina with eleven apical areas.
- gg. Wings with five apical areas.
- h. Apical areas of tegmina and wings of moderate length *Mardalana*.
- ggg. Wings with seven apical areas.
- hh. Apical areas of tegmina and wings very long *Thaumastopsaltria*.
- D. Tegmina with the venation of apical two thirds reticulate, apparently forming numerous cells; wings with nine apical areas . . . *Cystopsaltria* *.

Genus STAGIRA.

Stagira, Stål, Ann. Soc. Ent. Fr. (4) i. p. 621 (1861).

Type, *S. simplex*, Germ. (*Cicada*).

Stagira Darwini, sp. n.

Body pale testaceous; head beneath, sternum, femora, and a basal spot to tegmina beneath ochraceous; tarsi fuscous; tegmina and wings hyaline, the venation and costal membrane to tegmina ochraceous; lateral areas of the last two abdominal segments piceous; rostrum reaching the intermediate coxæ; space between costa and radial vein ochraceous;

* I only know this genus from the description and figure (partial) of Goding and Froggatt.

seventh apical area to tegmina considerably longer than the eighth; apical ventral segment centrally carinate, moderately apically produced.

Long., excl. tegm., ♂ 18 mm.; exp. tegm. 38 mm.

Hab. Mauritius (*C. Darwin*, Brit. Mus.).

BAVEA, gen. nov.

♀. Head (including eyes) narrower than base of mesonotum, as long as pronotum, the front broadly subconically produced, about as long as vertex, both centrally longitudinally sulcate, their margins discontinuous, ocelli rather nearer to eyes than to each other, front ocellus near anterior margin of vertex, anterior lateral margin of vertex convexly rounded; pronotum with the lateral margins obliquely straight, posterior angles very slightly ampliate; mesonotum (including cruciform elevation) much shorter than head and pronotum together; abdomen (♀) moderately inflated; tegmina and wings hyaline; tegmina with eight apical areas and the basal cell twice as long as broad; wings with six apical areas.

Type, *B. concolor*, Walk. (*Cephaloxys*).

Walker gave no habitat to his species which forms the type of the genus, but the specimen (♀) is labelled South Africa (*Dr. Smith*).

Genus MUSODA.

Musoda, Karsch, Berl. ent. Zeitschr. xxxv. pp. 112 & 128 (1890).

Type, *M. flavida*, Karsch.

The name *flavida* is based on faded or discoloured specimens; fresh examples are bright grass-green.

Genus BÆTURIA.

Bæturia, Stål, Hem. Afr. iv. p. 9 (1866).

Type, *B. conviva*, Stål (*Cicada*).

Genus MUDA.

Muda, Dist. Ann. Mus. Civ. Genoa, (2^a) xvii. p. 384 (1897).

Type, *M. concolor*, Dist.

Genus GYMNOTYMPANA.

Gymnotympana, Stål, Ann. Soc. Ent. Fr. (4) i. p. 619 (1861).

Type, *G. strepitans*, Stål (*Cicada*).

KUMANGA, gen. nov.

Head with the front narrow, about as long as broad, including eyes narrower than the base of mesonotum; pronotum narrowed anteriorly; mesonotum (including cruciform elevation) slightly shorter than head and pronotum together; abdomen in male longer than the space between apex of head and base of cruciform elevation; tympana entirely exposed; opercula completely covering the sonorous cavities and projecting beyond the lateral margins of the abdomen as seen from above; rostrum reaching the intermediate coxæ; tegmina and wings hyaline; tegmina with eight apical areas, seventh and eighth about equally long, basal cell about twice as long as broad; wings with six apical areas.

Type, *K. sandaracata*, Dist. (*Bæturia*).

CONIBOSA, gen. nov.

Head as long as breadth between eyes, front triangularly produced, as long as broad at base, its lateral margins and those of vertex discontinuous, vertex longer than front, ocelli well separated from basal margin and nearer to each other than to eyes; pronotum a little longer than head, its lateral margins straight, its posterior angles very little amplified; mesonotum (including cruciform elevation) scarcely longer than pronotum; abdomen somewhat strongly dilated in male, centrally arched and carinate, longer than space between apex of head and base of cruciform elevation; tympana entirely exposed; opercula in male type mutilated; rostrum reaching the intermediate coxæ; lower anal appendage to male long, projecting beyond apex of abdomen; anterior femora armed with three spines beneath; tegmina and wings hyaline; tegmina with eight, wings with five apical areas; basal cell to tegmina not twice as long as broad.

Type, *C. occidentris*, Walk. (*Cephaloxys*).

Genus CHLOROCYSTA.

Cystosoma, subgen. *Chlorocysta*, Westw. Ann. & Mag. Nat. Hist. (2) vii. p. 208 (1851).

Type, *C. vitripennis*, Westw. (*Cystosoma* [*Chlorocysta*]).

MARDALANA, gen. nov.

Chlorocysta, God. & Frogg. (part.), Proc. Linn. Soc. N.S. Wales, 1904, p. 658.

Allied to *Chlorocysta*, Westw., but tegmina with eleven, and wings with five apical areas; front of head more produced and less continuous with lateral margins of vertex;

ocelli much nearer to each other than to eyes; lateral margins of pronotum straighter, posterior angles much less (only slightly) amplified; abdomen in male less inflated.

Type, *M. congrua*, Walk.

Mardalana congrua.

Cicada congrua, Walk. Journ. Ent. i. p. 303 (1862).

Chlorocysta macrula, Stål, Tr. Ent. Soc. (3) i. p. 575 (1863); God. & Frogg. Proc. Linn. Soc. N. S. Wales, 1904, p. 660.

Although I am deferring all synonymical notes for the publication of my 'Catalogue of the Cicadidæ,' I think it right to mention that in reply to Mr. Froggatt's enquiry I stated that I could not find Walker's *C. congrua* in the Pascoe Collection (cf. Proc. Linn. Soc. N. S. Wales, 1904, p. 657). It has since been discovered, and proves to be a female specimen of Stål's species, and therefore takes precedence in nomenclature.

Genus THAUMASTOPSALTRIA.

Acrilla, Stål, Trans. Ent. Soc. Lond. (3) i. p. 575 (1863), nom. præocc.

Thaumastopsaltria, Kirk. Entomologist, 1900, p. 242, n. nom.

Type, *T. adipata*, Stål (*Acrilla*).

Genus CYSTOPSALTRIA.

Cystopsaltria, God. & Frogg. Proc. Linn. Soc. N. S. Wales, 1904, p. 661.

Type, *C. immaculata*, God. & Frogg.

XXVI.—*Descriptions and Records of Bees*.—I.

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EXCEPT where the contrary is stated, it is to be understood that all the Australian species discussed in this series of papers are in the collection of the British Museum, and all others in my own collection.

Melissodes kallstromiæ, sp. n.

♂.—Length about $11\frac{1}{2}$ mm.

Black, with the abundant pubescence of the vertex and thorax above orange-fulvous, without any black; that of cheeks, face, and pleura whitish; facial quadrangle not so broad as long; eyes (dry) silvery grey; clypeus (except

a black spot on each side) and a large patch on base of mandibles bright lemon-yellow; labrum yellowish white. Antennæ long (about $8\frac{1}{2}$ mm.); third joint hardly longer than second; flagellum entirely very bright fulvous beneath; fourth joint (first long joint of flagellum) long, much longer than fifth; joints entirely without longitudinal keels. Mesothorax densely punctured; tegulæ fulvous, with fulvous hair; hair of legs pale ochraceous (no black), that of hind tibiæ and tarsi strongly but briefly plumose; hair on inner side of tarsi ferruginous; apices of middle and hind femora, apices of all the tibiæ, and the tarsi entirely, ferruginous; hind tibiæ and basal joint of tarsi with black specks. Wings strongly smoky, yellowish basally, nervures and stigma rather dark ferruginous; second submarginal cell very large, very nearly as large as the first, receiving the recurrent nervure near the end; third submarginal cell narrowed much more than half to marginal. Abdomen rather narrow, with abundant coarse hair, erect and fulvo-ochraceous on first segment; ochraceous on second to fourth, but these segments have also black hair on the apical middle, and the fourth has black hair at base; fifth and sixth segments, and apex, entirely black, with black hair, but pale hair from the venter showing as a tuft on each side; apical plate dark red; hair of venter pale, with a good deal of black on middle of fourth and fifth segments, the apical segment dark reddish, fringed with black. Easily known from *M. aurigenia* by the colour of the abdominal pubescence; from *M. grindelie* by the longer antennæ, colour of pubescence, &c.

Hab. Mesilla Park, New Mexico, at flowers of *Kallstræmia*; July 27 (*Cockerell*).

It had previously visited an asclepiad, as shown by pollen-masses adherent to two of the legs.

Melissodes kallstræmiæ, var. *phenacoides*, nov.

♂.—Abdomen broader, with the ochreous pubescence replaced by white, except that the first segment has the hair faintly yellowish; the fifth segment has, in addition to the black, a few long white hairs; the hair of the vertex and thorax above is pallid, faintly tinged with ochraceous; the third antennal joint is a little longer; the nervures are clear ferruginous; the claws are larger, those on the hind legs being very large.

Hab. Las Cruces, New Mexico, Aug. 25, 1894 (*Cockerell*, 2027).

This is the insect which has gone in the New Mexico list *Ann. & Mag. N. Hist.* Ser. 7. Vol. xvi. 15

as *M. communis*, Cresson, having been so determined by Mr. Fox. The total absence of black hair on the thorax, the very large second submarginal cell, and the entirely ferruginous tarsi, separate it sufficiently from *M. communis* of the Eastern States. The variety differs from the type much as *M. agilis* differs from *M. aurigena*.

Xenoglossodes gutierreziae, sp. n.

♀.—Agrees with *X. eriocurpi* (Ckll.), except in the following characters:—

Larger (length 10 mm. or rather more); flagellum black, and rather longer; mandibles with no yellow spot or patch; upper margin of yellow on clypeus straight; labrum black; hind margin of first abdominal segment much more narrowly pallid.

Hab. Fillmore Cañon, Organ Mts., New Mexico, at flowers of *Gutierreziae* (the hind legs are loaded with the bright orange pollen), Aug. 29 (*C. H. T. Townsend*).

Diadasia enavata, Cresson.

At Mesilla, New Mexico, July 18, I took three females at flowers of *Helianthus annuus*.

Crocisa Wallacei, sp. n.

♂.—Length 9 mm. (but abdomen much retracted in specimen measured); wing $9\frac{1}{2}$ mm.

Belongs to the group of *C. histrio* (scutellum with **W**-like margin, abdomen with lateral marks not divided), and has the blue patches consisting of very bright and shining scales, in the manner of *C. cæruleifrons*. Differs from *C. nitidula* by having two blue spots on the scutellum, and the first abdominal segment with very large quadrangular lateral blue patches, leaving a black median band and the hind margin, like a reversed **T**. The entirely black tarsi, without any blue scales, and the smaller size separate it from *C. abdominalis*, Friese (from Java). The abundant blue spotting on the thorax and other characters separate it from *C. nana*, Friese. Apical half of labrum ferruginous; clypeus except anterior margin (which is broadly black and densely punctate) and sides of face up to level of ocelli covered with very brilliant silvery blue-green scales; middle of front black and punctured, the punctures of two sizes, not dense; antennæ black, the flagellum greyish; third antennal joint a little shorter than fourth; front and vertex

with black hair; thorax with blue or greenish-blue patches as follows: a very large one on upper and a small transverse one on lower part of pleura; a transverse one on each side of prothorax above, joining one on contiguous part of mesothorax; an elongate one on anterior middle, a round one on each side, and an axe-shaped one at each hind corner of mesothorax; a speck on each axilla; two spots on scutellum; interrupted bright blue bands on abdominal segments 1 to 5, that on 1 as already indicated; venter of abdomen entirely black, strongly punctate; apex truncate, faintly submarginate; tibiæ largely blue on outer side; tegulæ black, very densely punctured; wings fuliginous, with a violet lustre.

Hab. Ternate; with numbers 6263 and 92-44.

Named after Dr. A. R. Wallace. In British Museum Collection. It has a strong superficial resemblance to *C. cæruleifrons*.

Crocisa lamprosoma, Boisd.

Queensland (*E. Saunders*); three.

Crocisa cæruleifrons, W. F. Kirby.

Friese makes this a synonym of *C. quartina*, Gribodo, but Mr. Kirby's name appears to have priority. It is recorded from Timor Laut and Celebes; the Australian specimens before me appear to be certainly the same species, but they offer varietal or racial characters:—

Var. α .—A little larger; thoracic spots well-defined; hair of middle of occiput black, with white on each side; apex of male abdomen more narrowly truncate. Queensland (*E. Saunders*), 2 ♀, 1 ♂.

Var. β . *Darwini*.—Smaller, not over 9 mm. long; thoracic spots greenish and less defined, confluent on anterior part of mesothorax in ♂; occiput with a complete conspicuous fringe of white hair; apex of male abdomen more broadly truncate, the truncation concave; wings rather paler. The scutellum and tarsi are without blue. Port Darwin, N. Australia, no. 90-126; one of each sex.

Crocisa tincta, sp. n.

♀.—Length about 15 mm.

With the abdomen rather long and acuminate; upper wings dark fuscous, lower hyaline; light spots consisting of

hair or elongated scales, which are not shiny; those on head, thorax, and legs white or practically so, on abdomen pale blue; margin of scutellum **W**-like; lateral abdominal patches not divided. A species of the *C. histrio* group, easily known by its large size, and the absence of light marks on scutellum or tarsi. Mandibles with a blunt tooth within; eyes straw-yellow; face, cheeks, and occiput with much white hair; front strongly and densely punctured; third anteanal joint conspicuously longer than fourth; upper part of pleura covered with white hair, lower part nude, strongly and closely punctured, with a small spot of white hair; mesothorax with anterior margin except in middle, and extending on to prothorax, covered with white hair; lateral margins, and posterior ones except in middle, a median stripe anteriorly, and a spot on each side, also marked with hair; tibiæ with large light patches; tegument of abdomen slightly purplish on middle of first two segments; abdominal bands all very broadly interrupted in middle, that on first segment forming a large **U**-like mark on each side, that on fifth reduced to a pair of large round spots; venter without light markings.

Hab. Toowoomba, Australia, no. 93. 189.

Two specimens. The locality is in S.E. Queensland.

Trigona canifrons, Smith.

Adelaide River, Australia, no. 92-4. New to Australia.

The specimen differs from Bingham's description of *canifrons* in having the hair of the pleura pale cinereous, and the stigma and nervures fuscous; but a series of *T. canifrons* from Ceylon, received from Mr. Green, shows these characters, just as in the Australian insect. Judging from the description, I suspect that *T. biroï*, Friese, is a synonym.

Trigona essingtoni, sp. n.

Worker; length 4 mm.

Black (the abdomen brown-black), smooth and shining, with pale yellow markings as follows: mandibles (except ferruginous tips), labrum, clypeus (except narrow, black, anterior and posterior margins, and two large red-brown spots on disc), wedge-shaped lateral face-marks extending to level of antennæ, tubercles, narrow stripe on each side of mesothorax, extending to axillæ, all of scutellum, and apex of abdomen, the last being thinly pubescent with white hair. Antennæ reddish brown, the flagellum ferruginous beneath;

anterior knees with a yellow spot; small joints of tarsi fulvous; face with a scanty pale pruinose pubescence; thorax with very scanty pale hair; wings hyaline, nervures and stigma flavous. Mandibles at apex with a concave truncation, or minutely bidentate.

Hab. Port Essington, N. Australia, with no. 42. 1.

Two specimens. Easily known from *T. australis*, Friese, by the entirely yellow scutellum, pale apex of abdomen, markings of clypeus, &c.

Nomioides perditellus, sp. n.

♀.—Length about 5 mm.

Head and thorax bluish green, shining; pubescence scanty, white, more abundant on apex and underside of abdomen; eyes strongly emarginate; clypeus light yellow with two broad black bars (sometimes practically obsolete); mandibles yellowish with ferruginous tips; tubercles and adjacent upper border of prothorax, and tegulae, light yellow; wings clear, nervures pale testaceous, first recurrent nervure joining second transverso-cubital; antennae dark above and light beneath; femora black, with the knees yellow; tibiae and tarsi yellow, the middle and hind tibiae largely clouded with black or brown; abdomen broad, picous, with a large transverse yellow mark on each side of segments 2 to 5, those on 5 nearly meeting to form a continuous band; venter brown.

Hab. Queensland, marked "Seaf. 1/90," 438, and 92-16, two specimens. A third is marked Queensland, 2200, 75. 39.

Very distinct by the marking of the abdomen; the genus is new to Australia. It is extraordinarily like some of the species of the American genus *Perdita*, agreeing even in the details of the marking on the clypeus and abdomen; but the venation agrees with *Halictus*.

Thaumatoma Duboulayi, Smith.

Port Darwin, N. Australia, 92-44; Bandin I., 91-82.

The latter specimen has the fourth and fifth abdominal segments broadly margined with red.

Cælixys reginae, sp. n.

♀.—Length a little over 11 mm.; expanse $19\frac{1}{2}$ mm.

Black, even to the tarsi; pubescence on eyes very short; clypeus shining, with extremely large close punctures; face covered with white hair; vertex, mesothorax, and